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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/524,804
Filing Date: March 14, 2000
Appellant(s): TUTTLE, MARK E.

James D. Shaurette
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/14/05 appealing from the Office action mailed on 7/11/05.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

4,782,342	**Walton**	**11-1988**
5,493,437	**Lebby et al.**	**2-1996**
5,649,296	**MacLellan et al.**	**7-1997**
5,598,169	**Drabeck et al.**	**1-1997**
5,424,250	**Sawada**	**1/1998**
6,100,804	**Brady et al.**	**8-2000**

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Rejections - 35 USC § 102

Claims 59, 61, 76 and 78 are rejected under 35 U.S.C. 102(b) as being anticipated by Walton (4,782,342).

Regarding claims 59, 61, 76 and 78, Walton discloses a radio frequency identification device circuit (col. 6, lines 1-53, radio frequency identifier circuit 212) comprising: communication circuitry (col. 6, lines 1-53, radio frequency identifier circuit 212) with indicia there on (Fig. 6, PRINTED LABEL surface including barcode (612)); and an encapsulant configured to encapsulate and contact at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon (Fig. 6, col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar (610); Fig. 6, PRINTED LABEL surface including barcode (612)).

Claim Rejections - 35 USC § 103

Claims 60 and 77 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Lebby et al. (5,493,437).

Regarding claims 60 and 77, Walton continues, as disclosed in claims 59 and 76, to disclose a housing comprising thin side surface (Fig. 6, rectangular plastic housing (610)). But Walton does not disclose the housing comprises the at least one side surface has a dimension less than about 100 mills.

However, Lebby discloses, in the art of portable wireless communication device, the housing comprises the at least one side surface has a dimension less than about 100 mills (Fig. 1, casing thickness of 1 MM) to provide smaller and ruggedized structure. Therefore, it would have been obvious to a person at the time of invention to include the housing comprises one surface has a dimension less than about 100 mills in the device of Walton as evidenced by Lebby because Walton suggests a housing containing a thin side surface and Lebby teaches the housing comprises one surface has a dimension less than about 100 mills to provide smaller and ruggedized structure.

Claims 99-100 are rejected under 35 .S.C. 103(a) as being unpatentable over Walton in view of MacLellan (5,649,296).

Regarding claims 99-100, Walton discloses a wireless communication device (Figs. 4 and 6, col. 6, lines 8-23 and 44-53, identifier circuit (212) associated with radio frequency identification device) comprising: a housing (Fig. 6, plastic rectangular bar (610)) including an upper surface, a lower surface, and at least one side intermediate the upper surface and the lower surface and having a dimension less than smallest dimensions of the upper surface and the lower surface, and the at least one side surface having visibly perceptible indicia (Fig. 6, a side surface with written identification along with a bar code (612)) thereon; and communication circuitry (Fig. 6, identifier circuit (212)) within the housing and the communication circuitry being configured to communicate wireless signals. But Walton does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of radio frequency communication system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51,

backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton as evidenced by MacLellan because Walton suggests the communication circuitry is radio frequency identification and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

Claims 82, 50-51,54-56,58, 66-68, 71-73, 75 and 101 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton (4,782,342) in view of Drabeck et al. (5,598,169).

Regarding claim 82, Walton discloses a method of forming a radio frequency identification device comprising: providing radio frequency identification circuitry device configured to communicate wireless signals (col. 6, lines 1-53, radio frequency identifier circuit); coupling a power source (col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field) with the radio frequency identification device circuitry (col. 6, lines 1-53, radio frequency identifier circuit); coupling an antenna with the rfid device (col. 4, lines 50-65, idéntifier antenna (214); col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field) providing a housing (Fig. 6, housing (610)); and providing visibly perceptible indicia on the at least one side surface (Fig. 6, printed label along face including barcode (612)). But Walton does not teach wireless signals comprising microwave signals.

However, Drabeck teaches, in the art of wireless communication system, wireless signals comprising microwave signals (Title: Detector and Modulator Circuits for Passive Microwave Links; col. 5, lines 27-41, 2.45 GHz) for the purpose of providing efficient communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include wireless signals comprising microwave signals in the device of Walton because Walton suggest wireless signals and Drabeck teaches wireless signals comprising microwave signals for the purpose of providing efficient communication.

All subject matters in claims 50-51, 66-68 are disclosed in claim 82, and therefore, rejections of the subject matters expressed in claims 50, 53, 66 - 68 are met by references and associated arguments applied to rejections of claim 82.

Regarding claim 54, Walton teaches a wireless communication device (col. 6, lines 1-53, radio frequency identifier circuit 212 coupled with radio frequency flux) comprising: a substrate having a support surface defined by a perimetral edge (Fig. 6, col. 6, lines 1-53, printed label or indicia on the side); communication circuitry (Fig. 6, col. 6, lines 1-53, radio frequency identifier circuit 212 on the housing) elevationaly over the support surface (Fig. 6, col. 6, lines 1-53, radio frequency identifier circuit 212 (col. 6, line 10) placed on the side suggests the circuit elevated over the portion of the flat surface) of the substrate and configured to communicate wireless signals; and an encapsulant (Fig. 6, col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar 610) elevationally over the support surface and configured to encapsulate (Fig. 6, col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar 610) at least portions of the support surface of the substrate (Fig. 6, col. 6, lines 1-53, inactive support material or plastic rectangular bar 610) and the communication circuitry, and wherein the encapsulant and the substrate respectively define an upper surface and a lower surface and have a thickness less than a smallest dimension of the perimetral edge, and the encapsulant (Fig. 6, col. 6, lines 1-53, housing including indicia on side) includes visibly perceptible indicia intermediate the upper surface and the lower surface. But Walton does not teach wireless signals comprising microwave signals.

However, Drabeck teaches, in the art of wireless communication system, wireless signals comprising microwave signals (Title: Detector and Modulator Circuits for Passive Microwave Links; col. 5, lines 27-41, 2.45 GHz) for the purpose of providing efficient communication. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include wireless signals comprising microwave signals in the device of Walton because Walton suggest wireless signals and Drabeck teaches wireless signals comprising microwave signals for the purpose of providing efficient communication.

Regarding claim 55-56 and 58, Walton teaches the device according to claim 54, and furthermore a rectangle shape, the encapsulant contacts at least portions of the support surface and the communication circuitry; and rfid (Fig. 6, note; rectangle shape, upper portion of lower surface with circuitry, and rfid 212).

All subject matters in claims 71-73 and 75 are disclosed in claims 54-56 and 58, and therefore, rejections of the subject matters expressed in claims 71-73 and 75 are met by references and associated arguments applied to rejections of claims 54-56 and 58.

Regarding claim 101, Drabeck teaches the device according to claim 50 further comprising a transmit antenna configured to transmit microwave signals (Fig. 1, col. 2, line 61-63, col. 3, lines 53- 65, modulator diode 121 couples to antenna 102 to transmit) and a receive antenna configured to receive microwave signals (Fig. 1, col. 2, line 58-61, col. 3, lines 16-29, receiver circuit couple to antenna 102 and detector diode 111).

Claims 102-106 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 51 and 54 above, and further in view of Sawada (5,424,250).

Regarding claim 102, Walton teaches the device according to claim 51 further comprising ; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and substrate associated with assembly). But Walton in view of Drabeck does not teach a substrate comprising different material than the encapsulant.

However, Sawada teaches, in the art of semiconductor device, a substrate comprising different material than the encapsulant (col. 6, lines 4-14 and col. 9, line 36 to col. 10, line 2, substrate associated with chip 10 encapsulated by resin sheet 18a and 18b) for the purpose of providing ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a substrate comprising different material than the encapsulant in the device of Walton in view of Drabeck because Walton in view of Drabeck suggest wireless signals and

Sawada teaches a substrate comprising different material than the encapsulant for the purpose of providing ruggetized device.

Regarding claims 103-14, Walton teaches the device according to claim 54 further comprising ; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and substrate associated with assembly). But Walton in view of Drabeck does not teach a substrate comprising different material than the encapsulant and a solid mass substantially free of any void space.

However, Sawada teaches, in the art of semiconductor device, a substrate comprising different material than the encapsulant (col. 6, lines 4-14 and col. 9, line 36 to col. 10, line 2, substrate associated with chip 10 encapsulated by resin sheet 18a and 18b) and a solid mass substantially free of any void space (col. 2, lines 34-42, pressing encapsulating member to encapsulate the chip associated with substrate) for the purpose of providing ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a substrate comprising different material than the encapsulant and a solid mass substantially free of any void space in the device of Walton in view of Drabeck because Walton in view of Drabeck suggest wireless signals and Sawada teaches a substrate comprising different material than the encapsulant and a solid mass substantially free of any void space for the purpose of providing ruggetized device.

Regarding claims105, Walton teaches the device according to claim 54 further comprising ; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and substrate associated with assembly). But Walton in view of Drabeck does not teach a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna.

However, Sawada teaches, in the art of semiconductor device, a substrate and the encapsulant encapsulates chip (col. 6, lines 4-14 and col. 9, line 36 to col. 10, line 2, substrate associated with chip 10 encapsulated by resin sheet 18a and 18b) for the purpose of providing ruggedized device. Furthermore, one of ordinary skill in the art recognizes a substrate and the encapsulant encapsulates chip and a substrate and the encapsulant encapsulate

an entirety of the communication circuitry and the antenna provide ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna in the device of Walton in view of Drabeck because one of ordinary skill in the art recognizes a substrate and the encapsulant encapsulate an entirety of the communication circuitry and the antenna for the purpose of providing ruggetized device.

Regarding claims106, Walton teaches the device according to claim 66 further comprising; a substrate and the encapsulant (Fig. 6, encapsulant associated with plastic bar 610 and substrate associated with assembly). But Walton in view of Drabeck does not teach flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space.

However, Sawada teaches, in the art of semiconductor device, flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space (col. 1, lines 19-34, flowable encapsulate or melted resin over substrate or solid mass, col. 9, line 36 to col. 10, line 2, substrate associated with chip 10) for the purpose of providing ruggedized device. Therefore, it would have been obvious to a person skilled in the art at the time the invention was made to include flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space in the device of Walton in view of Drabeck because Walton suggests a substrate and the encapsulant and Sawada teaches flowing a flowable encapsulant over the substrate; and curing the flowable encapsulant into a solid mass substantially free of any void space for the purpose of providing ruggetized device.

Claims 86 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 54 above, and further in view of Brady et al. (6,100,804).

All subject matters except the power source comprises a battery; and antenna in claims 86 are disclosed in claim 54. However, Walton teaches antenna and power source (col. 4, lines 50-65, identifier antenna (214); col. 6,

lines 1-53, radio frequency identifier circuit energized by varying magnetic field), and furthermore Brady discloses, in the art of rfid system, portable communication device with a battery coupled with the communication circuitry (Fig. 5, col. 6, lines 50-61, battery source 510) for the purpose of providing additional power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck as evidenced by Brady because Walton in view of Drabeck suggests a passive power supply and Brady teaches a battery coupled with the communication circuitry for the purpose of providing additional power supply.

Claims 65 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 82 above, and further in view of Brady.

All subject matters except the power source comprises a battery; and antenna in claims 65 are disclosed in claim 82. However, Walton teaches antenna and power source (col. 4, lines 50-65, identifier antenna (214); col. 6, lines 1-53, radio frequency identifier circuit energized by varying magnetic field), and furthermore Brady discloses, in the art of rfid system, portable communication device with a battery coupled with the communication circuitry (Fig. 5, col. 6, lines 50-61, battery source 510) for the purpose of providing additional power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck as evidenced by Brady because Walton in view of Drabeck suggests a passive power supply and Brady teaches a battery coupled with the communication circuitry for the purpose of providing additional power supply.

Claims 84, 92, 88, 94 and 96 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 50, 59, 66, 71 and 76 above, and further in view of Brady et al. (6,100,804).

Regarding claim 84, 92, 88, 94 and 96, Walton continues, as disclosed in claims 50, 59, 76, 66 and 71 and 76, to disclose passive energy supply to the communication circuitry. But Walton in view of Drabeck does not disclose a battery coupled with the communication circuitry .

However, Brady discloses, in the art of rfid system, portable communication device with a battery coupled with the communication circuitry (Fig. 5, col. 6, lines 50-61, battery source 510) for the purpose of providing additional power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck as evidenced by Brady because Walton in view of Drabeck suggests a passive power supply and Brady teaches a battery coupled with the communication circuitry for the purpose of providing additional power supply.

Claims 52, 57, 62-64, 69, 74, 79 and 80-81 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck as applied to claims 50, 54, 66 and 71 above, and further in view of Lebby et al. (5,493,437).

Regarding claims 52, 57, 69 and 74, Walton continues, as disclosed in claims 50, 54, 66 and 71, to disclose a housing comprising thin side surface (Fig. 6, rectangular plastic housing (610)). But Walton does not disclose the housing comprises the at least one side surface has a dimension less than about 100 mills.

However, Lebby discloses, in the art of portable wireless communication device, the housing comprises the at least one side surface has a dimension less than about 100 mills (Fig. 1, casing thickness of 1 MM) to provide smaller and ruggedized structure. Therefore, it would have been obvious to a person at the time of invention to include the housing comprises one surface has a dimension less than about 100 mills in the device of Walton in view of Drabeck as evidenced by Lebby because Walton in view of Drabeck suggests a housing containing a thin side surface and Lebby teaches the housing comprises one surface has a dimension less than about 100 mills to provide smaller and ruggedized structure.

All subject matters except the housing comprises one surface have a dimension less than about 100 mills in claims 62 and 79 are disclosed in claims 50. However, Lebby discloses, in the art of portable wireless communication device, the housing comprises the at least one side surface has a dimension less than about 100 mills (Fig. 1, casing thickness of 1 MM) to provide smaller

and ruggedized structure. Therefore, it would have been obvious to a person at the time of invention to include the housing comprises one surface has a dimension less than about 100 mills in the device of Walton in view of Drabeck as evidenced by Lebby because Walton in view of Drabeck suggests a housing containing a thin side surface and Lebby teaches the housing comprises one surface has a dimension less than about 100 mills to provide smaller and ruggedized structure. Therefore, rejections of the subject matters expressed in claims 62 and 79 are met by references and associated arguments applied to rejections of claim 50 and to rejection provided in the above the paragraph.

Regarding claim 63, Walton in continues, as disclosed in claim 62, to disclose the housing comprises an encapsulant which contacts at least portions of the support surface and the communication circuitry (Fig. 6, col. 6, lines 8-54, the assembly is encapsulated in a plastic rectangular bar (610); note antenna rod (216) and identifier circuit (212)).

Regarding claim 64, Walton in continues, as disclosed in claim 62, to disclose the device further comprising an antenna within the housing and coupled with the communication circuitry (Fig. 6, col. 6, lines 8-54, the assembly is encapsulated in a plastic rectangular bar (610); note encapsulated antenna rod (216) energizes the identifier circuit (212) and the identifier circuit is activated).

All subject matters in claims 80-81 are disclosed in claims 50 and 79, and therefore, rejections of the subject matters expressed in claims 80-81 are met by references and associated arguments applied to rejections of claims 50 and 79.

Claims 89 and 97 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Walton in view of Drabeck and Lebby et al. (5,493,437) as applied to claims 62 and 79 above, and further in view of MacLellan et al. (5,649,296).

Regarding claims 89, 97, Walton continues, as disclosed in claims 79, 62 to disclose the communication circuitry is RFID receiver. But Walton in view of Lebby does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of wireless communication system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton in view of Drabeck and Lebby as evidenced by MacLellan because Walton in view of Drabeck and Lebby suggests the communication circuitry is RFID receiver and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

Claims 90 and 98 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walton in view of Drabeck and Lebby as applied to claims 62 and 79 above, and further in view of Brady.

Regarding claims 90 and 98, Walton continues, as disclosed in claims 62 and 79 to disclose passive energy supply to the communication circuitry. But Walton in view of Drabeck and Lebby does not disclose a battery coupled with the communication circuitry.

However, Brady discloses, in the art of portable communication device a battery coupled with the communication circuitry (Fig. 5, col. 6, lines 50-61, power source for wireless environment) for the purpose of extending power supply. Therefore, it would have been obvious to a person at the time of invention to include a battery coupled with the communication circuitry in the device of Walton in view of Drabeck and Lebby as evidenced by Brady because Walton in view of Drabeck and Lebby suggests passive energy supply to the communication circuitry and Brady teaches a battery coupled with the communication circuitry for the purpose of extending power supply.

Claims 83, 85, 91, 93, 87 and 95 are rejected under 35 .S.C. 103(a) as being unpatentable over Walton in view of Drabeck as applied to claims 50, 54, 59, 66, 71 and 76 above, and further in view of MacLellan (5,649,296).

Regarding claims 83, 91, 93, Walton continues, as disclosed in claims 50, 59 and 66 to disclose the communication circuitry is RFID receiver. But Walton

in view of Drabeck does not disclose the communication circuitry is configured to implement backscatter communications.

However, MacLellan discloses, in the art of wireless communication system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton in view of Drabeck as evidenced by MacLellan because Walton in view of Drabeck suggests the communication circuitry is RFID receiver and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

Regarding claims 85, 87 and 95, Walton continues, as disclosed in claims 54, 71 and 76 to disclose the communication circuitry is pager receiver. But Walton in view of Drabeck does not disclose the communication circuitry is configured to implement backscatter communications.
However, MacLellan discloses, in the art of credit card pager system, the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51, backscatter modulation applies to RFID) to better comply the FCC regulatory requirement. Therefore, it would have been obvious to a person at the time of invention to include the communication circuitry is configured to implement backscatter communications in the device of Walton in view of Drabeck as evidenced by MacLellan because Walton in view of Drabeck suggests the communication circuitry is radio frequency identifier device and MacLellan teaches the communication circuitry is configured to implement backscatter communications to better comply the FCC regulatory requirement.

(10) Response to Argument

Regarding appellant's argument (section A, pages 10-15; section E, pages 18-19) that the rejection lacks proper motivation to combine, is not persuasive.

With respect to claims 50-52, 54-58, 62-69, 71-75,79-98 and 101-106, the examiner maintains that Drabeck teaches microwave communication (col. 5, lines 27-32, 2.45 GHz is within microwave range) and backscattering communication (col. 2, lines 44-47; backscattering mode), and Walton teaches a radio frequency identification device comprising: providing radio frequency identification circuitry device configured to communicate wireless signals (col. 6, lines 1-53, radio frequency identifier circuit). Furthermore, appellant's invention is not directed to use of microwave r.f. communication. Rather it is directed to providing visibly perceptible information on at least one side of a housing of a wireless communication device (note; pages 2-3 of original specification). Clearly Walton teaches this to the extent as claimed (note; Fig. 6, col. 6, lines 44-53, housing 610 associated with identifier section 210).

Appellant's use of microwave communication is merely an extension of what appellant indicates as a preferred embodiment of using wireless electronic or radio frequency signals which indicate microwave signals. (note; pars. bridging pages 5-6 of specification).

Drabeck is cited to teach, what is already known in the art, the use of microwave communications in the wireless identification communication device art (col.1, lines11-19).

Regarding appellant's argument (section B. page 15), the examiner acknowledges that effective date of US 08/920,329 is 8/20/1997 (parent to this application) and effective date of prior art of Brady (6,100,804) is 7/16/1998. However, Walton teaches battery coupled to identification circuitry (col. 1, lines 23-25), and therefore, the reliance upon Brady for this teaching is unnecessary.

Regarding appellant's argument (section C, page 16), the examiner maintains that Walton teaches an encapsulant configured to encapsulate and

contact at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon (Fig. 6, col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar (610); Fig. 6, PRINTED LABEL surface including barcode (612), identifier section 210). Walton fails to specifically state a substrate exists. However, it is implied a substrate would be used in Walton. Furthermore, one skilled in the art recognizes circuitry 212 (col. 4, lines 52-59, identifier section 210) must be supported somehow and this is typically done via a substrate (i.e. circuit board).

Regarding appellant's argument (section D, pages 16-18), the examiner maintains that Walton in view of Drabeck teaches an encapsulant configured to encapsulate and contact at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon (Walton-Fig. 6, col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar (610); Fig. 6, PRINTED LABEL surface including barcode (612), identifier section 210), and furthermore, one skilled in the art recognizes circuitry 212 (Walton-col. 4, lines 52-59, identifier section 210) is on the support surface of substrate or foundation.

But Walton and Drabeck suggests substrate (implied) and encapsulant in an electronic communication device, but fail to indicate what material they are made of.

Without the knowledge of what the materials of an encapusulant and a substrate should be, one must look else-where. Sawada is one such place to find out what materials are desired when considering a substrate and an encapsulant for an electronic device. Clearly substrate needs to remain rigid where as encapsulant needs to be formed around it. This would imply the materials need to be different.

Regarding appellant's argument (section E, pages 18-19), the examiner maintains that MacLellan discloses the communication circuitry is configured to implement backscatter communications (col. 1, line 61 to col. 4, line 51,

backscatter modulation applies to RFID), and both Walton and MacLellan teach transponder system.

Note that Drabeck teaches backscattering (col. 1, lines 33-37), and MacLellan is further evidence of this. Also, examiner is not saying to use backscatter in inductive coupling system. Rather Drabeck and MacLellan suggest an art recognized alternative that uses backscattering in RFID system.

Regarding appellant's argument (section F, pages 19-20), the examiner maintains that claim 101 does not cite two dedicated antennae, and therefore, Drabeck teaches a transmit antenna configured to transmit microwave signals (Fig. 1, col. 2, line 61-63, col. 3, lines 53- 65, modulator diode 121 couples to antenna 102 to transmit) and a receive antenna configured to receive microwave signals (Fig. 1, col. 2, line 58-61, col. 3, lines 16-29, receiver circuit couple to antenna 102 and detector diode 111). One skilled in at recognizes it is known to use either a single antenna or two separate antennas for a transmitter and receiver at the same location. Whether to use a single antenna as in Drabeck or two separate antenna is up to skilled practitioner in the art in order to achieve same end result. Even applicant's specification provides no reason to use one over the other and suggests either means is appropriate (page 7 of specification).

Regarding appellant's argument (section G, pages 20-21), the examiner maintains that without the knowledge of what the materials of an encapusulant and a substrate should be, one must look elsewhere. Sawada is one such place to find out what materials are desired when considering a substrate and an encapsulant for an electronic device. Clearly substrate needs to remain rigid where as encapsulant needs to be formed around it. This would imply the materials need to be different, and also imply the encapsulant and substrate encapsulate an entirety of the communication circuitry and antenna wherein the communication circuitry and antenna are on the substrate and form solid mass as by encapsulation for the purpose of reducing corrosion of components (col. 2, lines 18-29) of device.

Regarding appellant's argument (section H, pages 21-22), Walton, Drabeck and Sawada suggests substrate and encapsulant in an electronic communication device, but fail to indicate substrate and encapsulant form a solid mass substantially free of any void space.

However, one skilled in the communication circuit arts recognizes substrate and encapsulant in an electronic device form, after cooling, a solid mass substantially free of any void space provided by compacting and molding electronic device for the purpose of reducing corrosion process as noted in art of Sawada (Fig. 6, col. 2, lines 18-29; col. 7, lines 7-16).

Regarding appellant's argument (section I, pages 22-24), the examiner maintains that Walton clearly teaches communication circuitry (col. 6, lines 1-53, radio frequency identifier circuit 212) with indicia there on (Fig. 6, PRINTED LABEL surface including barcode (612)); and an encapsulant configured to encapsulate and contact (Fig. 6, communication circuit including antenna 216 and identifier or chip 212 are contacting encapsulant 610 or filling (col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar but one side of circuit 212 is exposed as noted in the figure 6)) at least a portion of the communication circuitry, wherein the encapsulant defines at least one side surface and the at least one side surface has visibly perceptible information thereon (Fig. 6, col. 6, lines 44-53, the assembly is encapsulated in a plastic rectangular bar (610); Fig. 6, PRINTED LABEL surface including barcode (612)). That is, Walton clearly teaches that communication circuitry comprising identifier circuit 212 and antenna 216 is encapsulated partially as noted in figure 6.

Regarding appellant's argument (section J, pages 24-25), the examiner will respond to the IDS request (10/21/02) to the appellant in a separate communication. Appellant' argument is a petitionable issue, and not an appealable issue.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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